

TKHR Docket No. 820701-1180

REMARKS

Claims 1-31 are pending in the application. Claims 1-20 and 22-31 are rejected. Claim 21 is objected to but stated to include allowable subject matter if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5-7 and 15 are rejected under 35 U.S.C. 112 for insufficient antecedent basis. Claims 1, 2, 4, 6, 8, 10-12, 14, 16-20 and 22-31 are rejected under 35 U.S.C. 102(b) as allegedly anticipated by Jayaraman, et al. (U.S. 6,381,482). Claims 1, 2, 4, 6, 8, 10-12, 16-20, 22-26, 29 and 31 stand rejected under 35 U.S.C. 102(b) as allegedly anticipated by Post, et al. (U.S. 6,493,933). Claims 1-7, 10-12, 17-19, 23-25 and 31 stand rejected under 35 U.S.C. 102(c) as allegedly anticipated by Fernandez (U.S. 6,882,897). Lastly, claims 9 and 13 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Jayaraman in view of Balamuth, et al. (U.S. 3,321,558).

Applicants respectfully request reconsideration and withdrawal of the rejections in view of the following remarks.

1. The Claim Rejections Under 35 U.S.C. §112.

Claims 5-7 and 15 are amended herein to correct the insufficient antecedent basis, namely the phrase "masking device" noted in the Office Action at page 2.

Additionally claim 15 is amended to independent form. Applicants note claim 15 is only rejected under Section 112 and not based on prior art. Thus, Applicants submit claim 15 is now allowable.

2. The Claim Rejections Under 35 U.S.C. §102.

Of the remaining pending claims, 1, 17 and 31 are independent claims with all other claims depending upon one of these independent claims.

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Claim 1 is amended to incorporate the features of claim 2 and many, but not all, of original claim 3. Amended claim 1 includes the step of removing insulation from intersecting individually insulated conductive fibers or sections of a fiber including use of a masking device. Neither the Jayaraman nor the Post, et al. references are applied to claim 3. The Office Action, thus acknowledges that neither reference discloses, teaches or suggests the use of a mask for forming a junction or a switch as recited in claim 3, now amended claim 1. The only reference applied against claim 3 is the Fernandez reference. Fernandez, while it mentions the use of a mask, fails to identify how a mask may be used or what it may be used for except at Column 2, lines 34-36 where Fernandez comments that a "Garment may be knitted, molded, photolithographically deposited or constructed using one or more masking or implanting steps...". Fernandez, thus, fails to teach or suggest how a mask may be used for forming a junction or a switch between at least two conductors or sections of a conductor in a fabric web.

Claim 17 has been amended to partially incorporate the concept of claim 20, in particular the feature of an apparatus that brings individually conductive fibers or sections in contact with each other and forming a bond between them at a junction point including a component designed for movement across the fabric web to the junction point. None of the cited references teach or suggest this feature, let alone that of claim 20 where the component moves in at least one of the following directions, namely, a two-dimensional x-y direction along the fabric, and a three-dimensional x-y-z direction along and toward and away from the fabric. Fernandez fails to teach or suggest any apparatus or method for forming a junction between conductors incorporated in a fabric web. Jayaraman and Post fail to teach or suggest an apparatus that includes a component that moves along a fabric web to a selected point at the intersection of two conductors or sections of a conductor for forming a junction or bond at that intersection. Balamuth, et al. generally

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discloses an ultrasonic heating apparatus and method and discloses use of such an apparatus in conjunction with plastic sheets (See, for example, Col. 3, line 58) wet material such as paper, cloth or wire (See Col. 5, line 39). Balamuth fails to teach or suggest use of its ultrasonic heating apparatus and method in conjunction with a fabric web that includes conductors for forming a junction or switch between the conductors contained within the fabric web. Additionally, the ultrasonic heating device of Balamuth, et al. is stationary (see, for example, Fig. 4), and thus does not teach or suggest the feature that the apparatus includes a component that is movable along the surface of the web to a point where a junction or switch is desired.

Claim 31 is amended analogously to claim 17 to incorporate the feature of moving the apparatus along a surface of the fabric web to the desired location for bonding. As with claim 17, this feature is neither taught nor suggested by the cited references.

The dependent claims are believed allowable for the same reasons as their independent claims, in addition to being separately allowable.

3. New Claims 32 - 34

New claims 32 and 33 are added dependent upon claim 31 and are believed allowable for the same reason as claim 31. These claims do not present new matter. Claim 33 is patterned after claim 14. Claim 31 adds the feature of removing insulation which feature is in part in claim 3 among others.

New claim 34 is added dependent upon claim 17 and is directed to the concept of automating the system (see, for example, paragraph 029).

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4. Allowable Subject Matter – Claim 21

Claim 21 has been amended to incorporate the features of claim 17 upon which it depends. Additionally, claim 21 is amended to remove the lack of antecedent reference in connection with the terms “first apparatus” and “first and second apparatuses”.

Applicants submit that the amendment to remove the lack of antecedent basis for these terms does not change the allowability of the subject matter of claim 21.

5. Claim 6

Lastly Applicants wish to bring to the Examiner's attention an error in claim 6 in the publication of the present application, Publication No. US2005/0156015. This publication shows claim 6 as dependent upon claim 11. The application as originally filed presents claim 6 as dependent upon claim 1. Claim 6 as published is in error. Claim 6 should be dependent upon claim 1 not claim 11 as reflected herein.

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CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed and that all pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephone conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,



Todd Deveau, Reg. No. 29,526

**THOMAS, KAYDEN,
HORSTEMEYER & RISLEY, L.L.P.**
Suite 1750
100 Galleria Parkway N.W.
Atlanta, Georgia 30339
(770) 933-9500